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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/663,024

09/15/2003

Khalil Amine

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2546

31815 7590 07/09/2008

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EXAMINER

ECHELMMEYER, ALIX ELIZABETH

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

07/09/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/663,024	<b>Applicant(s)</b> AMINE ET AL.	
	<b>Examiner</b> Alix Elizabeth Echelmeyer	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,7,9,13-33 and 45-50 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,7,9,13-18,21-33 and 45-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office Action is in response to the amendment filed April 23, 2008. Claim 1 has been amended. Claim 50 has been added. Claims 1, 4, 5, 7, 9, 13-33 and 45-50 are pending. Claims 19 and 20 were previously withdrawn. Claims 1, 4, 5, 7, 9, 13-18, 21-33 and 45- 50 are rejected for the reasons given below.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 4, 5, 7, 9, 13-18, 21-33 and 45- 50 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for values of n greater than or equal to 4, does not reasonably provide enablement for smaller values of n. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the cyclic polysiloxane molecule of the invention commensurate in scope with these claims.

One having ordinary skill in the art would not be enabled to create the polysiloxane molecule for values of n less than 4. First, for values of n=1, the molecule would not be a polysiloxane because there would be only one siloxane molecule.

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Second, for values of  $n=2$  or  $3$ , the strain would be too large on the molecule, even if the molecule did form, and the molecule would be highly volatile.

MPEP 2164.01(a) Undue Experimentation Factors

There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is “undue.” These factors include, but are not limited to:

- (A) The breadth of the claims;
- (B) The nature of the invention;
- (C) The state of the prior art;
- (D) The level of one of ordinary skill;
- (E) The level of predictability in the art;
- (F) The amount of direction provided by the inventor;
- (G) The existence of working examples; and
- (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

*In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988)

The disclosed invention fails to satisfy the enablement requirement based on several factors from the above list. Only the relevant factors will be addressed.

(A) The breadth of the claims covers a scope broader than what is supported in the instant specification. Values of  $n=4$  and larger are enabled by the specification, but the broader range of values below  $4$  is not supported.

(D) The level of one of ordinary skill in the supports the determination that the specification does not enable the embodiments of  $n$  less than  $4$ , since one having ordinary skill in the art would recognize that, if such a molecule were to form, it would be highly strained and volatile.

(F) The amount of direction provided by the inventor does not enable values of  $n$  less than  $4$  since no examples of such a molecule are provided.

(G) The existence of working examples only for values of  $n$  greater than or equal to 4 supports the determination of undue experimentation, since there are neither examples nor instructions for creating a molecule for values of  $n$  less than 4.

(H) A large quantity of experimentation would be necessary to create the molecule for values of  $n$  less than 4, since instruction has not been provided and since one having ordinary skill in the art would recognize the unlikelihood of the possibility of such a molecule being formed.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 4, 5, 7, 9, 13-18, 21-33 and 45- 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The value of  $n$ , as found in the formula of claim 1, cannot be less than two since for values of  $n$  less than two the molecule could not be cyclic. Additionally, it appears from the specification that Applicant does have support for values of  $n$  less than 4 (see Examples 1-3). This support would serve as a supported end point for a range of  $n=4-100$ .

### ***Response to Arguments***

6. Applicant's arguments filed April 23, 2008 have been fully considered but they are not persuasive.

Concerning the 112 rejection, applicant argues that, since for values of  $n$  less than 2, the molecule of claims 1 and 50 could not be cyclic (nor could it be a polysiloxane), the claims do not cover values of  $n$  less than 2. The examiner interprets the claims, specifically  $n$ =up to 100 in claim 1 and  $n$ =1 to 100 in claim 50, to encompass values of  $n$  that are not enabled by the specification. The examiner further argues that for values of  $n$  being 2 or even 3, the strain in the molecule would be too high for the molecule to exist.

The specification does provide support for values of  $n$  as small as 4 or 5, and up to 100 ([0057]-[0060]). A range of  $n$ =4 to 100 would be enabled by the specification and a molecule having such a configuration would be possible to make.

Applicant is directed to section 2164.08 of the MPEP, which states that the Federal Circuit has held that “the specification must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation’.” The examiner believes that undue experimentation would be needed to determine how, if it is even possible, to make the polysiloxane of claims 1 and 50 for values of  $n$  less than 4.

### ***Double Patenting***

7. The Double Patenting rejection of April 23, 2008 is withdrawn in light of the abandonment of application 10.663,023.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alix Elizabeth Echelmeyer whose telephone number is (571)272-1101. The examiner can normally be reached on Mon-Fri 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Susy N. Tsang-Foster can be reached on 571-272-1293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alix Elizabeth Echelmeyer  
Examiner  
Art Unit 1795

aee

/Susy Tsang-Foster/

Supervisory Patent Examiner, Art Unit 1795